

Name: _____

at1124exam: Radicals and Squares (v828)

Question 1

Simplify the radical expressions.

$$\sqrt{8}$$

$$\sqrt{12}$$

$$\sqrt{27}$$

Question 2

Find all solutions to the equation below:

$$3(x - 4)^2 + 9 = 84$$

Question 3

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 + 14x = 95$$

Question 4

A quadratic polynomial function is shown below in standard form.

$$y = 4x^2 - 24x + 41$$

Express the function in **vertex form** and identify the **location** of the vertex.